

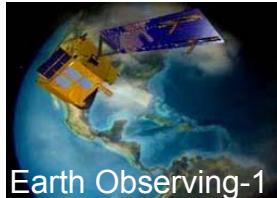
Earth Observing-1



June 4, 2002

Section 4

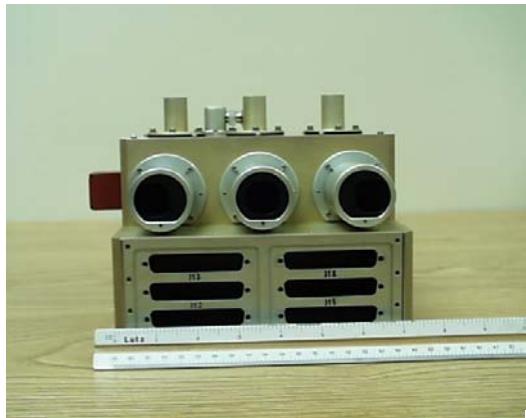
LEISA Atmospheric Corrector



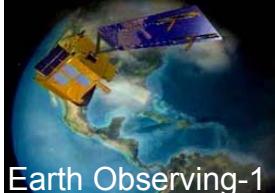
LEISA Atmospheric Corrector



June 4, 2002



- ◆ ***Correction of multispectral surface imagery for atmospheric variability (water and aerosols)***
- ◆ ***High spectral, moderate spatial resolution (250m), large swath (180km) hyperspectral imager using wedge filter technology***
- ◆ ***Spectral coverage of 0.89 - 1.6 μ m, bands selected for optimal correction of high spatial resolution images***



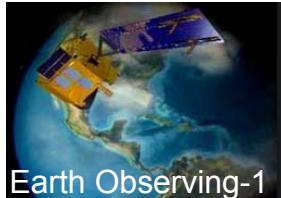
Earth Observing-1

LAC Performance



June 4, 2002

- ◆ ***High Spectral - Moderate Spatial Resolution Hyperspectral Imager Using Wedged Filter Technology (LVE)***
- ◆ ***Spectral Coverage: ~0.9 - 1.6 μm; 256 Bands Selected for Optimal Correction of High Spatial Resolution Images***
- ◆ ***Spectral Resolution: 35 cm⁻¹ ($\Delta\lambda$: 3 nm @ 0.9 μm, 9 nm @ 1.6 μm)***
- ◆ ***Swath Width: ~185 km; Matches Landsat***
- ◆ ***Spatial Resolution (pixel): 356 μradian (250 meter @ 705 Km)***
- ◆ ***Three 256 x 256 Element InGaAs Arrays; TEC Stabilized (<285 K)***
- ◆ ***Three 15 Degree FOV 3 Element Lenses***
- ◆ ***Two Modules: “Bolt-on”Optics Module and Electronics Module***
- ◆ ***Mass: 10.5 kg (EM, 4.4 kg; OM 3.9 kg; Cable 2.2 kg)***
- ◆ ***Power: 48 W (Peak); <15 W (Orbital Average)***



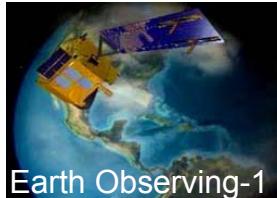
Earth Observing-1

Comparative Size



June 4, 2002



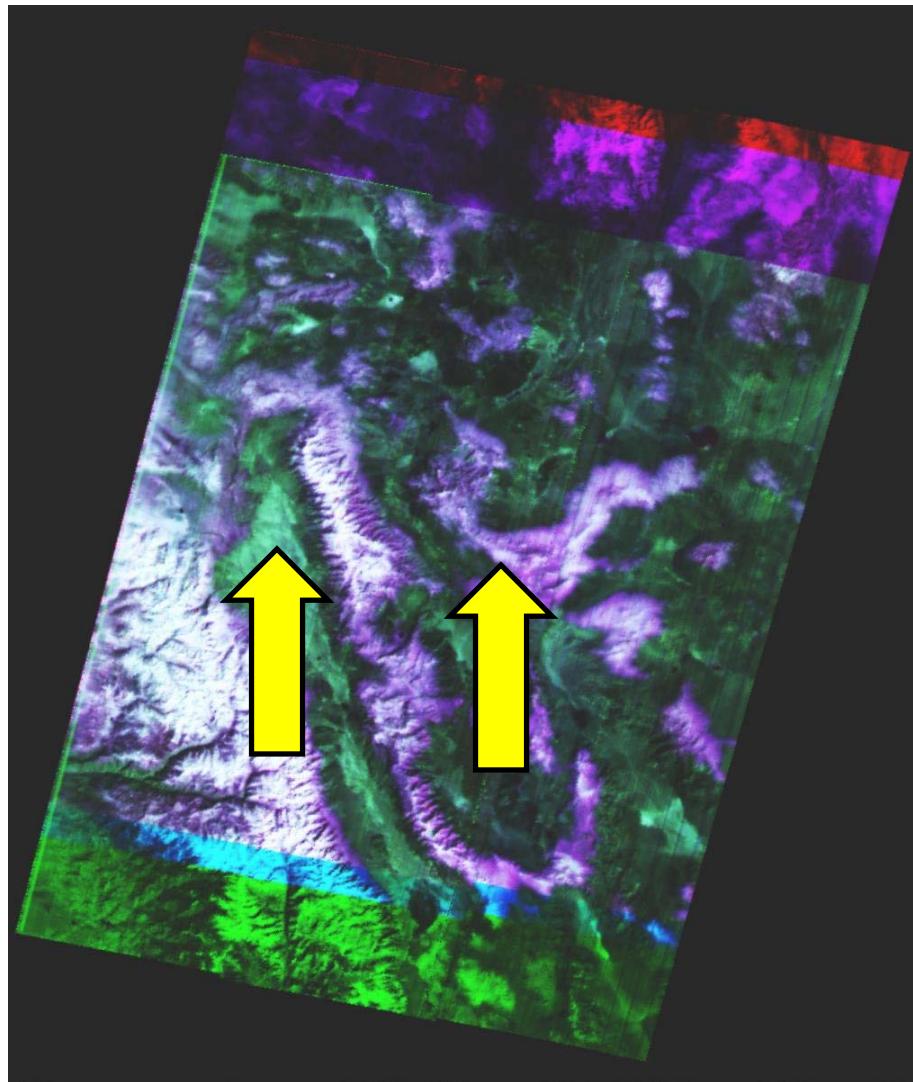


Earth Observing-1

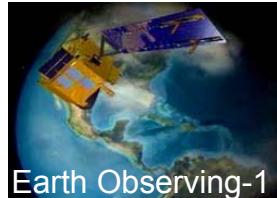
Color Composite Images



June 4, 2002



Cuprite, NV March 1, 2001
red=1.32, green=1.03, blue=0.98 (μm)



Earth Observing-1

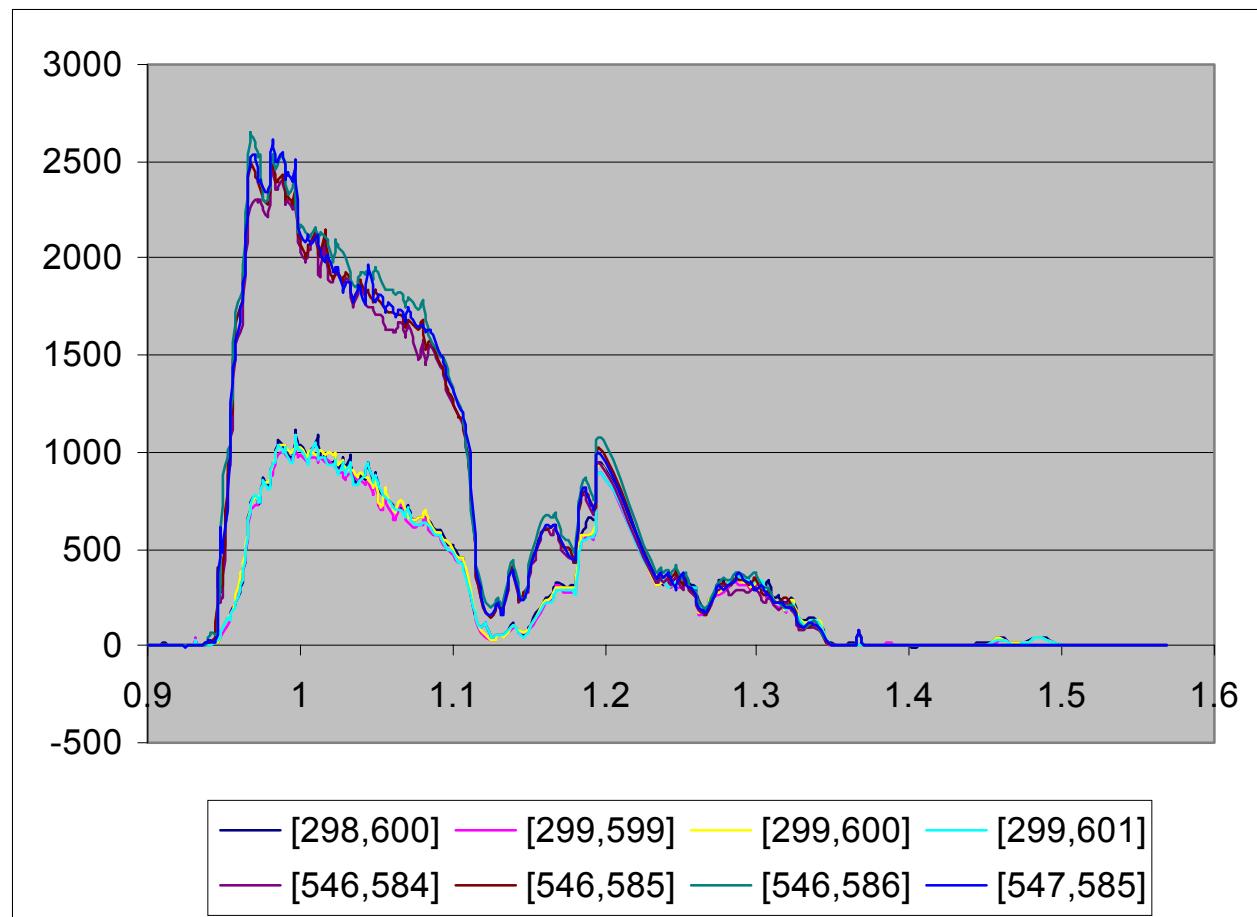
Spectra

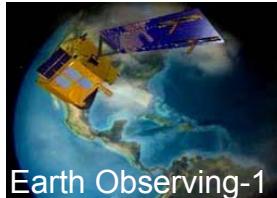


June 4, 2002

Cuprite, NV

March 1, 2001





Earth Observing-1

Status



June 4, 2002

- ◆ ***Operational: Complete***
- ◆ ***L1R Processing Software: Complete***
- ◆ ***Radiometric Calibration: Complete***
 - ***Non-linear correction being implemented***
- ◆ ***Geo-rectification Algorithms: Complete***